



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/764,818
Source: IFWO
Date Processed by STIC: 2/9/04

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FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 10/08/03



IFWO

RAW SEQUENCE LISTING

DATE: 02/09/2004

PATENT APPLICATION: US/10/764,818

TIME: 10:36:04

Input Set : N:\FATIMA\10764818.txt

Output Set: N:\CRF4\02062004\J764818.raw

3 <110> APPLICANT: ADVISYS

5 <120> TITLE OF INVENTION: GROWTH HORMONE RELEASING HORMONE ("GHRH") TREATMENT

DECREASES CULLING IN

6 HERD ANIMALS

8 <130> FILE REFERENCE: 108328.00170 - AVSI-0033

C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/764,818

C--> 10 <141> CURRENT FILING DATE: 2004-01-26

10 <160> NUMBER OF SEQ ID NOS: 30

12 <170> SOFTWARE: PatentIn version 3.1

14 <210> SEQ ID NO: 1

15 <211> LENGTH: 40

16 <212> TYPE: PRT

17 <213> ORGANISM: artificial sequence

19 <220> FEATURE:

20 <223> OTHER INFORMATION: This is the amino acid sequenc for HV-GHRH.

22 <400> SEQUENCE: 1

24 His Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln

25 1 5 10 15

28 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly

29 20 25 30

32 Glu Arg Asn Gln Glu Gln Gly Ala

33 35 40

36 <210> SEQ ID NO: 2

37 <211> LENGTH: 40

38 <212> TYPE: PRT

39 <213> ORGANISM: artificial sequence

41 <220> FEATURE:

42 <223> OTHER INFORMATION: This is the amino acid sequenc for TI-GHRH.

44 <400> SEQUENCE: 2

46 Tyr Ile Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln

47 1 5 10 15

50 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly

51 20 25 30

54 Glu Arg Asn Gln Glu Gln Gly Ala

55 35 40

58 <210> SEQ ID NO: 3

59 <211> LENGTH: 40

60 <212> TYPE: PRT

61 <213> ORGANISM: artificial sequence

63 <220> FEATURE:

64 <223> OTHER INFORMATION: This is the amino acid sequenc for TV-GHRH.

66 <400> SEQUENCE: 3

68 Tyr Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln

69 1 5 10 15

Does Not Comply
Corrected Diskette Needed

P.3

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Input Set : N:\FATIMA\10764818.txt

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72 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
73          20          25          30
76 Glu Arg Asn Gln Glu Gln Gly Ala
77          35          40
80 <210> SEQ ID NO: 4
81 <211> LENGTH: 40
82 <212> TYPE: PRT
83 <213> ORGANISM: artificial sequence
85 <220> FEATURE:
86 <223> OTHER INFORMATION: This is the amino acid sequenc for 15/27/28-GHRH.
88 <400> SEQUENCE: 4
90 Tyr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
91 1          5          10          15
94 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
95          20          25          30
98 Glu Arg Asn Gln Glu Gln Gly Ala
99          35          40
102 <210> SEQ ID NO: 5
103 <211> LENGTH: 44
104 <212> TYPE: PRT
105 <213> ORGANISM: artificial sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: This is a consensus sequence for GHRH
110 <400> SEQUENCE: 5
112 Thr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln
113 1          5          10          15
116 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Ser Arg Gln Gln Gly
117          20          25          30
120 Glu Ser Asn Gln Glu Arg Gly Ala Arg Ala Arg Leu
121          35          40
124 <210> SEQ ID NO: 6
125 <211> LENGTH: 40
126 <212> TYPE: PRT
127 <213> ORGANISM: artificial sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: This is the artificial sequence for GHRH (1-40)OH.
132 <220> FEATURE:
133 <221> NAME/KEY: MISC_FEATURE
134 <222> LOCATION: (1)..(1)
135 <223> OTHER INFORMATION: Xaa at position 1 may be tyrosine, or histidine
138 <220> FEATURE:
139 <221> NAME/KEY: MISC_FEATURE
140 <222> LOCATION: (2)..(2)
141 <223> OTHER INFORMATION: Xaa at position 2 may be alanine, valine, or isoleucine.
144 <220> FEATURE:
145 <221> NAME/KEY: MISC_FEATURE
146 <222> LOCATION: (15)..(15)
147 <223> OTHER INFORMATION: Xaa at position 15 may be alanine, valine, or isoleucine.
150 <220> FEATURE:

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Input Set : N:\FATIMA\10764818.txt

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151 <221> NAME/KEY: MISC_FEATURE
 152 <222> LOCATION: (27)..(27)
 153 <223> OTHER INFORMATION: Xaa at position 27 may be methionine, or leucine.
 156 <220> FEATURE:

157 <221> NAME/KEY: MISC_FEATURE
 158 <222> LOCATION: (28)..(28)
 159 <223> OTHER INFORMATION: Xaa at position 28 may be serine or asparagine.
 162 <220> FEATURE:

163 <221> NAME/KEY: MISC_FEATURE
 164 <222> LOCATION: (34)..(34)
 165 <223> OTHER INFORMATION: ARG may also be SER
 168 <220> FEATURE:

*"Arg" can only represent itself,
 nothing else. Use "Xaa",
 instead, and explain in
 <2207-22237 section*

169 <221> NAME/KEY: MISC_FEATURE
 170 <222> LOCATION: (38)..(38)
 171 <223> OTHER INFORMATION: Gln may also be Arg
 174 <400> SEQUENCE: 6

Same error

*use
 Xaa*

and explain

W--> 176 Xaa Xaa Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Xaa Gln

177 1 5 10 15
 180 Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Xaa Xaa Arg Gln Gln Gly
 181 20 25 30
 184 Glu Arg Asn Gln Glu Gln Gly Ala
 185 35 40

188 <210> SEQ ID NO: 7
 189 <211> LENGTH: 323
 190 <212> TYPE: DNA
 191 <213> ORGANISM: artificial sequence
 193 <220> FEATURE:
 194 <223> OTHER INFORMATION: This is a nucleic acid sequence of a eukaryotic promoter c5-

12.

196 <400> SEQUENCE: 7
 197 cggccgctccg ccctcggcac catcctcacg acacccaaat atggcgacgg gtgaggaatg 60
 199 gtgggggagtt atttttagag cggtaggaa ggtgggcagg cagcaggtgt tggcgctcta 120
 201 aaaataactc ccgggagtta ttttagagc ggaggaatgg tggacacca aatatggcga 180
 203 cggttcctca cccgtcgcca tatttggtg tccgccctcg gccggggcgg cattcctggg 240
 205 ggccggggcgg tgctcccggc cgctcgata aaaggctccg gggccggcgg cggccccacga 300
 207 gctacccgga ggagcgggag gcg 323
 210 <210> SEQ ID NO: 8
 211 <211> LENGTH: 190
 212 <212> TYPE: DNA
 213 <213> ORGANISM: artificial sequence
 215 <220> FEATURE:
 216 <223> OTHER INFORMATION: Nucleic acid sequence of a hGH poly A tail.
 218 <400> SEQUENCE: 8
 219 ggggtggcatc cctgtgaccc ctccccagtg cctctcctgg ccctggaagt tgccactcca 60
 221 gtgcccacca gcctgtcct aataaaatta agttgcatca tttgtctga ctagggtgtcc 120
 223 ttctataata ttatggggtg gaggggggtg gtatggagca aggggcaagt tgggaagaca 180
 225 acctgtaggg 190
 228 <210> SEQ ID NO: 9
 229 <211> LENGTH: 219
 230 <212> TYPE: DNA

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231 <213> ORGANISM: artificial sequence

233 <220> FEATURE:

234 <223> OTHER INFORMATION: This is the cDNA for Porcine GHRH.

236 <400> SEQUENCE: 9

| | | | | | | | |
|-----|------------|------------|------------|------------|------------|------------|-----|
| 237 | atggtgctct | gggtgttctt | ctttgtgatc | ctcaccctca | gcaacagctc | ccactgctcc | 60 |
| 239 | ccacctcccc | ctttgacct | caggatgcgg | cggcacgtag | atgccatctt | caccaacagc | 120 |
| 241 | taccggaagg | tgctggccca | gctgtccgcc | cgcaagctgc | tccaggacat | cctgaacagg | 180 |
| 243 | cagcagggag | agaggaacca | agagcaagga | gcataatga | | | 219 |

246 <210> SEQ ID NO: 10

247 <211> LENGTH: 40

248 <212> TYPE: PRT

249 <213> ORGANISM: artificial sequence

251 <220> FEATURE:

252 <223> OTHER INFORMATION: This is the amino acid sequence for porcine GHRH.

254 <400> SEQUENCE: 10

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 256 | Tyr | Ala | Asp | Ala | Ile | Phe | Thr | Asn | Ser | Tyr | Arg | Lys | Val | Leu | Gly | Gln |
| 257 | 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| 260 | Leu | Ser | Ala | Arg | Lys | Leu | Leu | Gln | Asp | Ile | Met | Ser | Arg | Gln | Gln | Gly |
| 261 | | | | 20 | | | | 25 | | | | | | 30 | | |
| 264 | Glu | Arg | Asn | Gln | Glu | Gln | Gly | Ala | | | | | | | | |
| 265 | | | 35 | | | | 40 | | | | | | | | | |

268 <210> SEQ ID NO: 11

269 <211> LENGTH: 3534

270 <212> TYPE: DNA

271 <213> ORGANISM: artificial sequence

273 <220> FEATURE:

274 <223> OTHER INFORMATION: This is the nucleic acid sequence for the operatively linked

275 onents of the HV-GHRH plasmid.

277 <400> SEQUENCE: 11

| | | | | | | | |
|-----|------------|------------|------------|------------|-------------|-------------|------|
| 278 | gttgtaaaac | gacggccagt | gaattgtaat | acgactcact | atagggcgaa | ttggagctcc | 60 |
| 280 | accgcggttg | cggccgtccg | ccctcggcac | catctcacg | acacccaaat | atggcgacgg | 120 |
| 282 | gtgaggaatg | gtggggagtt | atttttagag | cggtgaggaa | ggtgggcagg | cagcaggtgt | 180 |
| 284 | tggcgctcta | aaaataactc | ccgggagtta | tttttagagc | ggaggaatgg | tggacacca | 240 |
| 286 | aatatggcga | cggttcctca | cccgtcgcca | tatttggtg | tccgccctcg | gccggggccg | 300 |
| 288 | cattcctggg | ggccggggcg | tgctcccgcc | cgctcgata | aaaggctccg | gggcccggcg | 360 |
| 290 | cggcccacga | gctacccgga | ggagcgggag | gcgccaagct | ctagaactag | tggatcccaa | 420 |
| 292 | ggcccaactc | cccgaaccac | tcagggtcct | gtggacagct | cacctagctg | ccatggtgct | 480 |
| 294 | ctgggtgttc | ttctttgtga | tcctcaccct | cagcaacagc | tccactgct | ccccacctcc | 540 |
| 296 | ccctttgacc | ctcaggatgc | ggcggcacgt | agatgccatc | ttaccaaca | gctaccggaa | 600 |
| 298 | ggtgctggcc | cagctgtccg | ccgcgaagct | gctccaggac | atcctgaaca | ggcagcaggg | 660 |
| 300 | agagaggaac | caagagcaag | gagcataatg | actgcaggaa | ttcgatatca | agcttatcgg | 720 |
| 302 | ggtggcatcc | ctgtgacccc | tccccagtgc | ctctcctggc | cctggaagtt | gccactccag | 780 |
| 304 | tgccaccag | ccttgctcta | ataaaattaa | gttgcatcat | tttgtctgac | taggtgtcct | 840 |
| 306 | tctataatat | tatgggggtg | aggggggtg | tatggagcaa | ggggcaagtt | gggaagacaa | 900 |
| 308 | cctgtagggc | ctgcggggtc | tattgggaac | caagctggag | tgacgtggca | caatcttggc | 960 |
| 310 | tactgcaat | ctccgcctcc | tgggttcaag | cgattctcct | gcctcagcct | cccagagttgt | 1020 |
| 312 | tgggattcca | ggcatgcatg | accaggtcca | gctaattttt | gttttttttg | tagagacggg | 1080 |
| 314 | gtttcaccat | attggccagg | ctggtctcca | actcctaata | tcagggtgatc | taccacacct | 1140 |
| 316 | ggcctcccaa | attgctggga | ttacaggcgt | gaaccactgc | tcccttccct | gtcctttctga | 1200 |

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Input Set : N:\FATIMA\10764818.txt

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318 ttttaaaata actataaccag caggaggacg tccagacaca gcataggcta cctggccatg 1260
320 cccaaccggt gggacatttg agttgcttgc ttggcactgt cctctcatgc gttgggtcca 1320
322 ctcaagtagat gcctgttgaa ttcgataccg tcgacctoga gggggggccc ggtaccagct 1380
324 tttgttcctt ttagtgaggg ttaatttcga gcttggcgta atcatgggtca tagctgtttc 1440
326 ctgtgtgaaa ttgttatccg ctcaacaattc cacacaacat acgagccgga agcataaaagt 1500
328 gtaaagcctg ggggtgcctaa tgagtgaagt aactcacatt aattgcgttg cgctcactgc 1560
330 ccgctttcca gtccggaaac ctgtcgtgcc agctgcatta atgaatcggc caacgcgcgg 1620
332 ggagaggcgg tttgcgtatt gggcgctctt ccgcttcctc gctcactgac tcgctgcgct 1680
334 cggtcgttcg gctgcggcga gcggtatcag ctactcaaa ggcggtataa cggttatcca 1740
336 cagaatcagg ggataacgca ggaaagaaca tgtgagcaaa aggccagcaa aaggccagga 1800
338 accgtaaaaa ggccgcgttg ctggcggttt tccatagggt ccgccccctc gacgagcatc 1860
340 acaaaaatcg acgctcaagt cagaggtggc gaaaccgcag aggactataa agataccagg 1920
342 cgtttccccc tggaagctcc ctctgtgcgt tccctgttcc gacctgccg cttaccggat 1980
344 acctgtccgc ctttctccct tcgggaagcg ttgcgctttc tcatagctca cgctgtaggt 2040
346 atctcagttc ggtgtaggtc gttcgctcca agctgggctg tgtgcacgaa cccccgttc 2100
348 agcccagccg ctgcgcctta tccgtaact atcgtcttga gtccaaccgg gtaagacacg 2160
350 acttatcgcc actggcagca gccactggta acaggattag cagagcgagg tatgtaggcg 2220
352 gtgctacaga gttcttgaag tgggtggcta actacggcta cactagaaga acagtatttg 2280
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356 gcaaacaaac caccgctggt agcgggtggt tttttgtttg caagcagcag attacgcgca 2400
358 gaaaaaaagg atctcaagaa gatcctttga tcttttctac ggggtctgac gctcagaaga 2460
360 actcgtcaag aaggcgatag aaggcgatgc gctgcgaatc gggagcggcg ataccgtaaa 2520
362 gcacgaggaa gcggtcagcc cattcgccgc caagctcttc agcaatatca cgggtagcca 2580
364 acgctatgtc ctgatagcgg tccgccacac ccagccggcc acagtcgatg aatccagaaa 2640
366 agcggccatt ttccaccatg atattcgga agcaggcatc gccatgggtc acgacgagat 2700
368 cctcgccgtc gggcatgcgc gccttgagcc tggcgaacag ttcggctggc gcgagcccct 2760
370 gatgctcttc gtccagatca tctgatcga caagaccggc ttccatccga gtacgtgctc 2820
372 gctcgatgcg atgtttcgct tgggtggcga atgggcagggt agccggatca agcgtatgca 2880
374 gccgcgcgat tgcacagcc atgatggata ctttctcggc aggagcaagg tgagatgaca 2940
376 ggagatcctg ccccggaact tcgcccata gcagccagtc ccttcccgtc tcagtgacaa 3000
378 cgtcgagcac agctgcgcaa ggaacgcccg tcgtggccag ccacgatagc cgcgtgcct 3060
380 cgtcctgcag ttcatcagg gcaccggaca ggtcggctct gacaaaaaga accgggcgcc 3120
382 cctgcgctga cagccggaac acggcgcat cagagcagcc gattgtctgt tgtgccagt 3180
384 catagccgaa tagcctctcc acccaagcgg ccggagaacc tgcgtgcaat ccatcttgtt 3240
386 caatcatgcg aaacgatect catcctgtct cttgatcaga tcttgatccc ctgcgccatc 3300
388 agatccttgg cggcaagaaa gccatccagt ttactttgca gggcttccca acctaccag 3360
390 agggcgcccc agctggcaat tccggttcgc ttgctgtcca taaaaccgcc cagtctagca 3420
392 actgttggga agggcgatcg gtgcgggcct cttcgctatt acgccagctg gcgaaagggg 3480
394 gatgtgctgc aaggcgatta agttgggtaa cgccagggtt ttcccagtca cgac 3534
397 <210> SEQ ID NO: 12
398 <211> LENGTH: 3534
399 <212> TYPE: DNA
400 <213> ORGANISM: artificial sequence
402 <220> FEATURE:
403 <223> OTHER INFORMATION: Nucleic acid sequence for the TI-GHRH plasmid.
405 <400> SEQUENCE: 12
406 gttgtaaaac gacggccagt gaattgtaat acgactcact atagggcgaa ttggagctcc 60
408 accgcggttg cggccgtccg ccctcggcac catcctcacg acacccaaat atggcgacgg 120
410 gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcagggtg 180

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/764,818

DATE: 02/09/2004
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Input Set : N:\FATIMA\10764818.txt
Output Set: N:\CRF4\02062004\J764818.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 1, 2, 15, 27, 28

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 5

VERIFICATION SUMMARY

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Input Set : N:\FATIMA\10764818.txt

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6